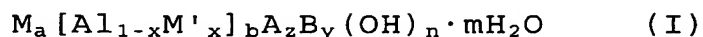


## CLAIMS

1. Organic acid anion containing aluminum salt hydroxide particles represented by the following

5 general formula (I):



(wherein M is at least one cation selected from the group consisting of  $Na^+$ ,  $K^+$ ,  $NH_4^+$  and  $H_3O^+$ ,  $M'$  is at least one metal cation selected from the group consisting of  $Cu^{2+}$ ,  $Zn^{2+}$ ,  $Ni^{2+}$ ,  $Sn^{4+}$ ,  $Zr^{4+}$ ,  $Fe^{2+}$ ,  $Fe^{3+}$  and  $Ti^{4+}$ , A is at  
10 least one organic acid anion, B is at least one inorganic acid anion, and a, b, m, n, x, y and z satisfy  $0.7 \leq a \leq 1.35$ ,  $2.7 \leq b \leq 3.3$ ,  $0 \leq m \leq 5$ ,  $4 \leq n \leq 7$ ,  $0 \leq x \leq 0.6$ ,  $1.7 \leq y \leq 2.4$ , and  $0.001 \leq z \leq 0.5$ ,  
15 respectively.)

2. The particles according to claim 1, which are represented by the formula (I) wherein a satisfies  $0.9 \leq a \leq 1.2$ .

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3. The particles according to claim 1, which are represented by the formula (I) wherein b satisfies  $2.8 \leq b \leq 3.2$ .

25 4. The particles according to claim 1, which are represented by the formula (I) wherein m satisfies  $0 \leq m \leq 2$ .

30 5. The particles according to claim 1, which are represented by the formula (I) wherein n satisfies  $5 \leq n \leq 6.5$ .

6. The particles according to claim 1, which are represented by the formula (I) wherein x satisfies  $0$

$$\leq x \leq 0.3.$$

7. The particles according to claim 1, which are represented by the formula (I) wherein y satisfies 1.8  
5  $\leq y \leq 2.2$ .

8. The particles according to claim 1, which are represented by the formula (I) wherein z satisfies 0.01  
10  $\leq z \leq 0.4$ .

9. The particles according to claim 1, wherein the organic acid anion (A) in the formula (I) is at least one selected from anions based on an organic carboxylic acid and an organic oxycarboxylic acid.  
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10. The particles according to claim 1, wherein the organic acid anion (A) in the formula (I) is at least one selected from anions based on an organic carboxylic acid and an organic oxycarboxylic acid which have 1 to  
20 15 carbon atoms.

11. The particles according to claim 1, wherein the inorganic acid anion (B) in the formula (I) is at least one selected from the group consisting of a  
25 sulfate ion, a phosphate ion, a nitrate ion and a silicate ion.

12. The particles according to claim 1, wherein the inorganic acid anion (B) in the formula (I) is a  
30 sulfate ion or a sulfate ion and a phosphate ion.

13. The particles according to claim 1, wherein  $D_{25}$  and  $D_{75}$  satisfy  $1 < D_{75}/D_{25} < 1.8$  when particle diameters at 25% and 75% values of cumulative particle

size distribution curve measured by a laser diffraction method are represented by  $D_{25}$  and  $D_{75}$ , respectively..

14. The particles according to claim 1, which are  
5 in the shape of grains, pairs, rectangular  
parallelepiped, disks (go stones), hexagonal plates,  
rice grains or cylinders.

15. The particles according to claim 1, having  
10 an average particle diameter of 0.1 to 10  $\mu\text{m}$ .

16. A burned product obtained by burning the  
organic acid anion containing aluminum salt hydroxide  
particles of claim 1 at 300 to 1,000°C.

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17. The particles according to claim 1, which  
carry a hydrolysate of a salt of at least one metal  
selected from the group consisting of Cu, Zn, Ni, Sn,  
Zr, Fe and Ti, on the surfaces thereof.

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18. The alunite type compound particles of claim  
1, having surfaces thereof treated with at least one  
surface treating agent selected from the group  
consisting of a higher fatty acid, an anionic  
25 surfactant, a phosphoric ester, a coupling agent and  
an ester of a polyhydric alcohol and a fatty acid.

19. A method for producing organic acid anion  
containing aluminum salt hydroxide particles,  
30 comprising carrying out a heating reaction in the  
presence of an organic acid or organic acid salt when  
an alkali hydroxide solution selected from the second  
group is added to a mixed solution comprising an  
inorganic salt of  $\text{Al}^{3+}$  or at least one cation selected

from the group (first group) consisting of  $\text{Al}^{3+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Ni}^{2+}$ ,  $\text{Sn}^{4+}$ ,  $\text{Zr}^{4+}$ ,  $\text{Fe}^{2+}$ ,  $\text{Fe}^{3+}$  and  $\text{Ti}^{4+}$  and a sulfate or nitrate of at least one selected from the group (second group) consisting of  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{NH}_4^+$  and  $\text{H}_3\text{O}^+$  to  
5 cause the heating reaction.

20. The method according to claim 19, wherein the inorganic salt is aluminum sulfate.

10 21. The method according to claim 19, wherein the organic acid is at least one selected from the group consisting of an organic carboxylic acid, an organic oxycarboxylic acid and their salts.

15 22. The method according to claim 19, wherein the organic acid is at least one selected from the group consisting of an organic carboxylic acid having 1 to 15 carbon atoms, an organic oxycarboxylic acid having 1 to 15 carbon atoms, and their salts.

20 23. The method according to claim 19, wherein the inorganic acid salt is at least one selected from the group consisting of a sulfate, a nitrate, a phosphate and a silicate.

25 24. The method according to claim 19, comprising carrying out the heating reaction at 90 to 250°C.

30 25. A resin additive comprising the organic acid anion containing aluminum salt hydroxide particles of claim 1.

26. A resin composition containing the resin additive of claim 25.

27. An adsorbent composition containing the organic acid anion containing aluminum salt hydroxide particles of claim 1.

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28. A dye carrier containing the organic acid anion containing aluminum salt hydroxide particles of claim 1.

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29. An ultraviolet absorber containing the organic acid anion containing aluminum salt hydroxide particles of claim 1.